Ind. Collection
Black Oak
Sanitation & Sewage

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Lake Sandy Jo Site

Site History

Operating History

1960's - Sand & gravel borrowed from Lake Sandy Jo

Used for recreation

1971 - Filling begins (Gemin Corp)

1975 - Indiana files suit against Gemin Corp.

1976 - Gemin Corp fined 20K, ordered to pump lake dry, limited fill
To demolition debris

Gemin sells to Glen & Gordon Martin instead

Site called M&M Landfill, gets variance for inert construction and demolition debris. Variance revoked and reinstated several times. Open dumping, site grading, failure to cover. City of Gary documents above and below ground fires.

1980 - Landfill full

1982 - Site placed on National Priorities List

1984-1986 Remedial Investigation conducted

Remedial Investigation Results

SURFACE SOILS

GROUNDWATER

SURFACE WATER AND SEDIMENTS

EXPOSURE ASSESSMENTS

SURFACE SOILS

LEAD

BENZO (a) PYRENE

DIRECT CONTACT RISK - FENCE INSTALLED 1986

GROUND WATER

Residential wells southeast of site poor quality

- Secondary MCLs iron, manganese, sodium, magnesium, potassium, sulfur.
- Low levels, below MCLs, of metals.
- Metals and benzene in monitoring wells below MCLs
- Potential for exposure to groundwater users

Surface water and sediments

No organics detected in surface waters

Leachate contained metals below ambient water quality criteria

Sediments in drainage ditches south of site contained PAH compounds above background levels

Exposure Assessment

Inhalation: breathing in dust

Ingestion: eating or drinking

Adsorption: taking contaminants in through skin

Risks from site

Surface soil, inhalation risk from PAHs

Sediment, ingestion risk from PAHs

Ground water, possible future risk from benzene found in monitoring wells (no benzene was detected in residential wells).

Remedy Objectives

Prevent inhalation, absorption or ingestion of surface soils and sediments

Prevent ingestion of drinking water

Prevent future releases of sediments to drainage ditches from site soils

Actions Taken

Deed restrictions to prevent future development

Institutional controls to prevent groundwater use

Municiple water supply

Landfill cover and fence

Monitor groundwater and sediment

Excavation and disposal of ditch sediments

Construction of remedy

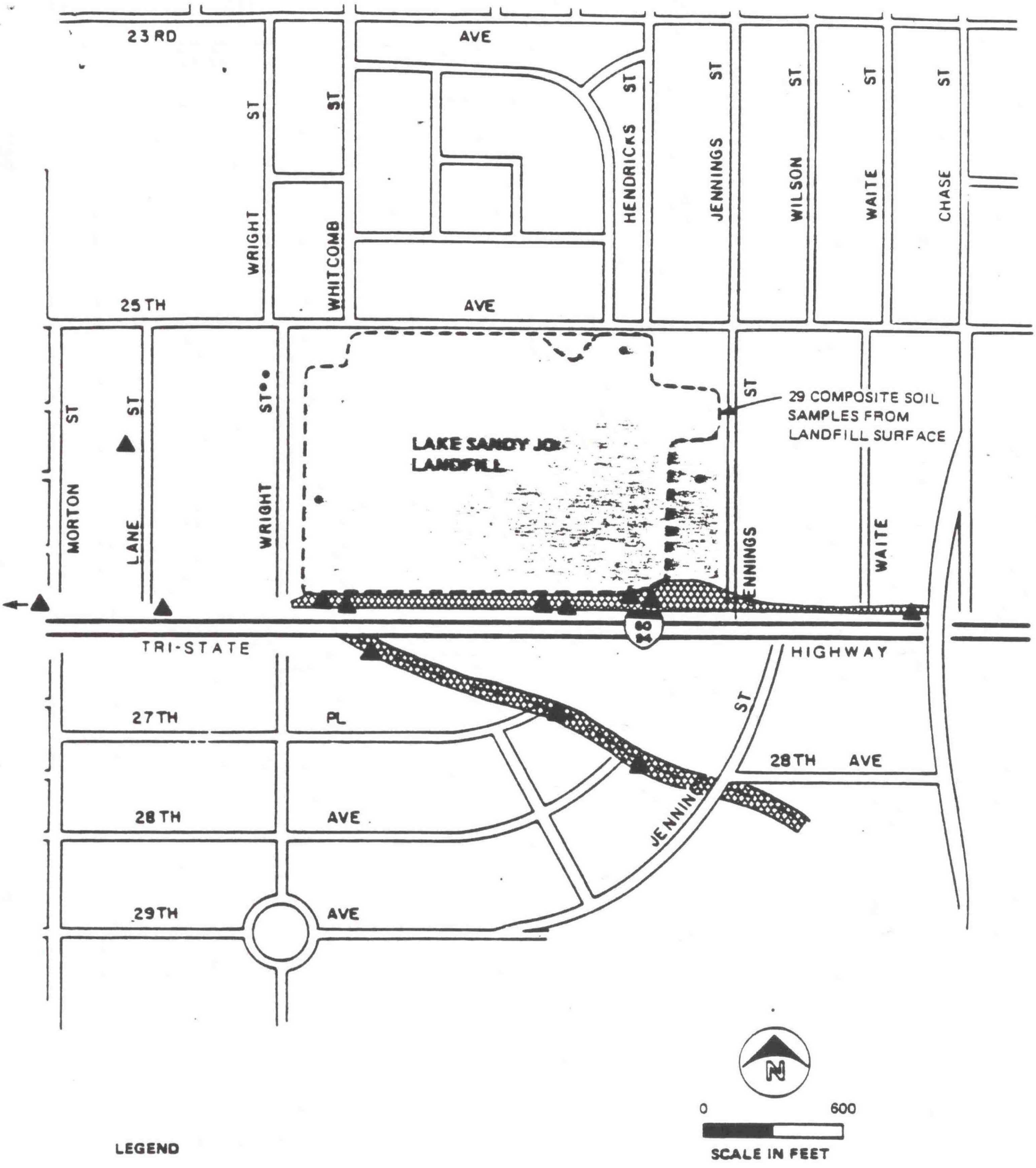
Excavation of sediments and cover completed in 1989.

Construction of water line completed in 1991.

Water line hookups completed from 1993 - 1995

Monitoring continues.

Deed restrictions being placed by legal counsel



LEGEND

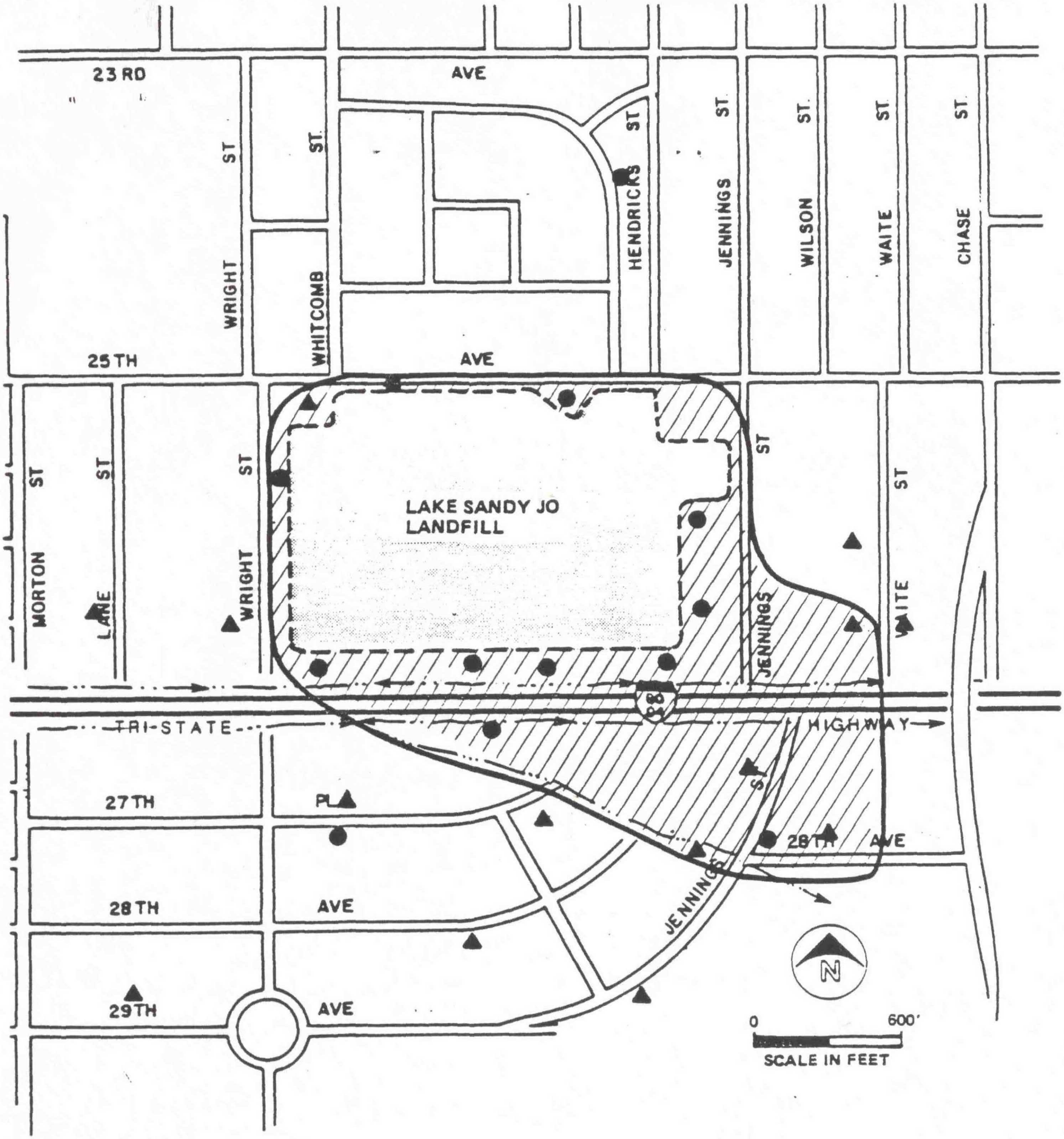
● DISCRETE SOIL SAMPLING LOCATION

▲ SEDIMENT SAMPLING LOCATION

░ AREA OF KNOWN OR SUSPECTED SURFACE SOIL CONTAMINATION

▩ AREA OF KNOWN OR SUSPECTED SEDIMENT CONTAMINATION

FIGURE 1-4
EXTENT OF CONTAMINATION:
SOIL AND SEDIMENT
LAKE SANDY JO FS



LEGEND

● APPROXIMATE LOCATION OF MONITORING WELL OR WELL PAIR IN CALUMET AQUIFER

▲ APPROXIMATE LOCATION OF SAMPLED RESIDENTIAL WELL IN CALUMET AQUIFER

—·— APPROXIMATE LOCATION OF DRAINAGE DITCHES

///// AREA OF CALUMET AQUIFERS PRESENTLY AFFECTED BY CONTAMINANTS FROM LANDFILL. THE BOUNDARY ENCOMPASSES WELLS FROM WHICH SAMPLES WITH CONCENTRATIONS GREATER THAN BACKGROUND WERE OBTAINED.

FIGURE 4
EXTENT OF CONTAMINATION
GROUNDWATER
LAKE SANDY JO FS